

Request for Council Action

Originator Engineering	Item Blue Line Systems Study, Consultant Contract Approval
Agenda Section Consent	Date 12/15/2014
Description	

Issue:

The Blue Line Traffic and Transit Signal System Study is a joint effort between the City of Bloomington and Metro Transit to study light rail and vehicular traffic operations at intersections along the Blue Line between the Airport and the Mall America in order to increase efficiency of vehicles and transit operations along the line, and within the South Loop District.

Background:

At its opening in 2004, the Hiawatha Light Rail Line (now the Blue Line) was the first light passenger rail system in operation in the metropolitan area. Since its opening, the systems used to manage the traffic signals along the line have undergone numerous revisions. In the first few years of operation the traffic lights operated with ordinary railroad pre-emption, which abruptly halts traffic operations the same way as a freight train does before passing through. Because of the frequency of trains along the Blue Line, this type of operation caused significant backups at the I-494 @ 34th Avenue interchange, and made it impossible to coordinate signals along 34th Avenue with any degree of reliability. Because of that, a number of traffic signals along the line were retrofitted with light rail priority in 2008, which is a more subtle form of managing traffic signals around trains. That change did reduce delay at certain intersections, especially the 494 interchange, however, the system used was an early implementation, and other system improvements that would have made it operate more robustly (like increased rail detection) were never added, so vehicle progression across multiple signals on 34th Avenue has remained out of reach. In addition, the technology behind light rail priority pre-emption has advanced significantly since then, as demonstrated by recent urban passenger rail projects such as the Green Line thorough St. Paul.

Current Study:

The current effort proposes a comprehensive review of both the traffic signal control and passenger rail control systems along the line. The study will identify deficiencies in equipment and operational parameters used to manage traffic along 34th Avenue. Once those issues are understood, a comprehensive plan will be developed for both the City and Metro Transit to plan and implement improvements to both systems as a coordinated improvement plan.

The consultant contract is for Kimley Horn and Associates and Alliant Engineering. Both firms have local experience with Light Rail systems and with City signals. Kimley Horn was the primary engineering firm involved on the 34th Avenue Diverging Diamond project, including the signal and light rail operations, and was also heavily involved with light rail on the Green Line. Alliant Engineering has completed light rail work for Minneapolis on the Blue Line, as well as working for the City of Bloomington doing signal operations and traffic signal coordination. Both firms are well qualified, and the agreement engages the services of both firms under a single contract.

Metro Transit has agreed to pay for half of the approximately \$100,000 study through a separate reimbursement agreement that will make its way through Council in January. The remainder of the study (approximately \$50,000) will be paid for by the City using engineering funds budgeted for consulting work 2014 and 2015, as well as South Loop funds (fund 435) budgeted for similar purposes.

Requested Action

Staff recommends approval of the Consultant agreement for the Blue Line Traffic and Transit Signal System Study in a not to exceed amount of \$110,000.00, and authorization for the the Mayor and City Manager to sign the agreement upon approval by the City Attorney.

Attachments: